

CLAIMS:

1. An operation control method for a tandem press line in which a work transportation device is disposed between a press apparatus on an upstream side and a press apparatus on a downstream side which are adjacent to each other, wherein
operation of the press apparatus on the downstream side is controlled based on a signal in accordance with operation of the press apparatus on the upstream side;
operation of the work transportation device is controlled based on a signal according to the operation of the press apparatus on the upstream side in a work carrying-out section in a vicinity of the press apparatus on the upstream side; the operation of the work transportation device is controlled based on a signal according to the operation of the press apparatus on the downstream side in the work carrying-in section in a vicinity of the press apparatus on the downstream side; and the operation of the work transportation device is controlled based on a signal which is unique to the work transportation device in the work transporting section between the press apparatus on the upstream side and the press apparatus on the downstream side.
2. The operation control method for a tandem press line according to claim 1, wherein
indication values representing slide positions of press apparatuses which are adjacent to each other are rendered correspondence to each other and are stored previously;
an indication value representing the slide position of each press apparatus is detected; a corresponding indication value for the press apparatus on the downstream side is determined on the basis of the indication value detected for the press apparatus on the upstream side; and the operation of the press apparatus on the downstream side is controlled such that the indication value detected for the press apparatus on the downstream side is identical to the determined indication value for the press apparatus on the downstream side.

3. The operation control method for a tandem press line according to claim 1, wherein each press apparatus is continuously operated.
4. The operation control method for a tandem press line according to claim 1, wherein speed of a motor provided for the press apparatus on the downstream side is controlled when the operation of the press apparatus on the downstream side is controlled.
5. The operation control method for a tandem press line according to claim 1, wherein, when the operation of the work transportation device is controlled, the operation of the work transportation device is controlled such that the difference between the signal in accordance with the operation of the press apparatus on the upstream side and a signal unique to the work transportation device is reduced at the boundary between the work carrying-out section and the work transfer section, and the difference between the signal in accordance with the operation of the press apparatus on the downstream side and a signal unique to the work transportation device is reduced at the boundary between the work carrying-in section and the work transfer section.
6. A tandem press line in which a work transportation device is disposed between a press apparatus on an upstream side and a press apparatus on a downstream side which are adjacent to each other, comprising:
 - a press controlling section which controls operation of the press apparatus on the downstream side on the basis of a signal in accordance with operation of the press apparatus on the upstream side; and
 - a work transfer control section which controls the operation of the work transportation device on the basis of a signal in accordance with the operation of the press apparatus on the upstream side in the work carrying-out section in the vicinity of the press apparatus on the upstream side; controls the operation of the work transportation device on the basis of a signal in accordance with the operation of the press apparatus on the downstream side in the work carrying-in section in the vicinity of the press apparatus on the downstream side; and controls the operation of the work

transportation device on the basis of a signal which is unique to the work transportation device in the work transfer section between the press apparatus on the upstream side and the press apparatus on the downstream side.

7. The tandem press line according to claim 6 further comprising a press control section that previously stores indication values representing slide positions of press apparatuses which are adjacent to each other such that the indication values are rendered correspondence to each other, wherein

the press control section detects an indication value representing the slide position of each of the press apparatuses; determines corresponding indication value for the press apparatus on the downstream side on the basis of the indication value detected for the press apparatus on the upstream side; and controls operation of the press apparatus on the downstream side such that the indication value detected for the press apparatus on the downstream side is identical to the determined indication value for the press apparatus on the downstream side.

8. The tandem press line according to claim 6, wherein each of the press apparatuses is continuously operated.

9. The tandem press line according to claim 6, wherein the press control section controls speed of a motor provided for the press apparatus on the downstream side.

10. The tandem press line according to claim 6, wherein the work transfer control section controls operation of the work transportation device such that difference between a signal in accordance with the operation of the press apparatus on the upstream side and a signal unique to the work transportation device is reduced at the boundary between the work carrying-out section and the work transfer section, and the difference between the signal in accordance with the operation of the press apparatus on the downstream side and a signal unique to the work transportation device is reduced at the boundary between the work carrying-in section and the work transfer section.

11. A work transportation device for a tandem press line comprising a work transfer

section disposed between a press apparatus on an upstream side and a press apparatus on a downstream side which are adjacent to each other among a plurality of press apparatuses, and a control section which controls operation of the work transfer section, wherein

the control section controls the operation of the work transportation device on the basis of a signal in accordance with the operation of the press apparatus on the upstream side in the work carrying-out section in the vicinity of the press apparatus on the upstream side; controls the operation of the work transportation device on the basis of a signal in accordance with the operation of the press apparatus on the downstream side in the work carrying-in section in the vicinity of the press apparatus on the downstream side; and controls the operation of the work transportation device on the basis of a signal which is unique to the work transportation device in the work transfer section between the press apparatus on the upstream side and the press apparatus on the downstream side.

12. The work transportation device for a tandem press line according to claim 11, wherein the control section controls the operation of the work transportation device such that difference between the signal in accordance with the operation of the press apparatus on the upstream side and the signal unique to the work transportation device is reduced at a boundary between the work carrying-out section and the work transfer section, and difference between a signal in accordance with the operation of the press apparatus on the downstream side and the signal unique to the work transportation device is reduced at the boundary between the work carrying-in section and the work transfer section.